

*Volume 47, Number 1, January–February 2006*

<b>Causal sets as discrete spacetime</b>	
F. Dowker . . . . .	1
<b>Klein–Gordon equation for atoms</b>	
H. Pilkuhn . . . . .	11
<b>Testing special relativity using slow light</b>	
B. T. H. Varcoe . . . . .	25
<b>The warm inflationary universe</b>	
A. Berera . . . . .	33
<b>Essay review</b>	
<b>We delight in physics</b>	
E. Sheldon . . . . .	51
<b>Book reviews</b> . . . . .	57

*Volume 47, Number 2, March–April 2006*

<b>Quarks, diquarks, tetraquarks, and pentaquarks</b>	
F. E. Close . . . . .	67
<b>From Einstein's theorem to Bell's theorem: a history of quantum non-locality</b>	
H. M. Wiseman . . . . .	79
<b>Minimal length scales for the existence of local temperature</b>	
Michael Hartmann . . . . .	89
<b>The universe from scratch</b>	
J. Ambjørn, J. Jurkiewicz and R. Loll . . . . .	103
<b>The string theory landscape: a tale of two hydras</b>	
Joseph P. Conlon . . . . .	119

*Volume 47, Number 3, May–June 2006*

<b>Experiment and theory in the Casimir effect</b>	
G. L. Klimchitskaya and V. M. Mostepanenko . . . . .	131
<b>The triple-<math>\alpha</math> process and the origin of the elements</b>	
C. A. Tout . . . . .	145
<b>'Planetodiversity': the variety of planets and planetary systems in the Universe</b>	
A. Sánchez-Lavega . . . . .	157

*Volume 47, Number 1, January–February 2006*

<b>Causal sets as discrete spacetime</b>	
F. Dowker . . . . .	1
<b>Klein–Gordon equation for atoms</b>	
H. Pilkuhn . . . . .	11
<b>Testing special relativity using slow light</b>	
B. T. H. Varcoe . . . . .	25
<b>The warm inflationary universe</b>	
A. Berera . . . . .	33
<b>Essay review</b>	
<b>We delight in physics</b>	
E. Sheldon . . . . .	51
<b>Book reviews</b> . . . . .	57

*Volume 47, Number 2, March–April 2006*

<b>Quarks, diquarks, tetraquarks, and pentaquarks</b>	
F. E. Close . . . . .	67
<b>From Einstein's theorem to Bell's theorem: a history of quantum non-locality</b>	
H. M. Wiseman . . . . .	79
<b>Minimal length scales for the existence of local temperature</b>	
Michael Hartmann . . . . .	89
<b>The universe from scratch</b>	
J. Ambjørn, J. Jurkiewicz and R. Loll . . . . .	103
<b>The string theory landscape: a tale of two hydras</b>	
Joseph P. Conlon . . . . .	119

*Volume 47, Number 3, May–June 2006*

<b>Experiment and theory in the Casimir effect</b>	
G. L. Klimchitskaya and V. M. Mostepanenko . . . . .	131
<b>The triple-<math>\alpha</math> process and the origin of the elements</b>	
C. A. Tout . . . . .	145
<b>'Planetodiversity': the variety of planets and planetary systems in the Universe</b>	
A. Sánchez-Lavega . . . . .	157

**Essay review**

**A history skirmish in physics**

D. R. Matravers. . . . . 167

**Book reviews** . . . . . 171

*Volume 47, Number 4, July–August 2006*

**Superconducting detectors in astronomy**

F. Rahman . . . . . 181

**Optimization through quantum annealing: theory and some applications**

D. A. Battaglia and L. Stella. . . . . 195

**Physics and fingerprints**

Patrick Voss-de Haan. . . . . 209

**Book reviews** . . . . . 231

*Volume 47, Number 5, September–October 2006*

**The physics and biology of fluorescence microscopy in the life sciences**

Fred S. Wouters. . . . . 239

**Using quantum theory to improve measurement precision**

Jacob A. Dunningham . . . . . 257

**Edwin Power and the birth of dressed atoms**

G. Compagno, R. Passante and F. Persico . . . . . 269

**A straightforward introduction to continuous quantum measurement**

Kurt Jacobs and Daniel A. Steck. . . . . 279

**Luminescence of ion-irradiated  $\alpha$ -quartz**

Klaus-Peter Lieb and Juhani Keinonen . . . . . 305

**Book reviews** . . . . . 333

*Volume 47, Number 6, November–December 2006*

**Overdamping of coherently driven quantum systems**

B. W. Shore and N. V. Vitanov. . . . . 339

**Cataclysmic variables**

Robert Cannon Smith . . . . . 361

**The modified Newtonian dynamics—MOND and its implications for new physics**

Jacob D. Bekenstein . . . . . 385

**Book reviews** . . . . . 403

**Volume contents** . . . . . 413